LOG OF MEETING DIRECTORATE FOR ENGINEERING SCIENCES

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Meeting of ASTM Subcommittee F15.09 for Home Playground Equipment **SUBJECT:**

DATE OF MEETING: June 17-18, 1997

PLACE: ASTM Headquarters

W. Conshohocken, PA

LOG ENTRY SOURCE: John Preston, ES

DATE OF ENTRY: June 23, 1997

COMMISSION ATTENDEES: John Preston, ES

NON-COMMISSION ATTENDEES:

Teri Hendy, Site Masters Scott Burton, Safety Play Eric Laiche, Roadmaster Patrick Welsh, Hedstrom Guy Lyon, Little Tikes

Scott Vonacka, Rainbow

Tom Mazurek, Fisher-Price Donna Thompson, U. of N. Iowa David Hommel, Childcraft Ed. Corp. David Dick, ACTS Testing Labs.

Frances Wallach, Total Rec. Matt Bolland, Swing 'N Slide

SUMMARY OF MEETING:

Reports were given from others involved in playground equipment safety as follows:

John Preston noted that he would be attending a meeting of ISO TC 181 for Safety of Toys that was scheduled for June 24-27 in Washington DC. He said that Part 4 of the ISO toy safety standard will address backyard play sets and a first draft of this part appeared to be the same as the ASTM F1148 standard. Preston also noted that the CPSC Handbook for Public Playground Safety was being revised and a draft of the proposed revisions had been mailed to over 200 people.

Donna Thompson reported that the National Program for Playground Safety held a four day school for playground safety a week ago at the University of Northern Iowa. Another similar school will be held on August 13-16. Dr. Thompson also said that they had made a video concerning adult supervision of children in playgrounds.

The next agenda item was discussion and resolution of negative votes cast in a ballot of revisions to the F1148 standard that closed on May 13, 1997. Six negative votes were cast on Item 1 of the ballot which was a definition of a guardrail that also contained a design requirement for the width and configuration of the top of a guardrail. Several of these negatives were declared persuasive and changes were made to separate the definition from the requirement and to make some changes to the language. These changes will be reballoted.

The same six negatives were received in response to Item 2 on the ballot which was a similar definition and design requirement for protective barriers. The same changes were made to this item which also will be re-balloted.

Item 3 on the ballot concerned the height of guardrails and protective barriers together with the height of platforms requiring guardrails or protective barriers. Several changes were made to this section of the standard which will be re-balloted.

A manufacturer stated that he would have cast a negative vote on Item 3 but he didn't receive the ballot in time to submit it before the deadline. He said he objected to the proposed requirement for the underside of guardrails to be no more than 23 inches above a platform and requested that the subcommittee consider changing this to 24 inches. During discussion on this request it was noted that the 23-inch maximum dimension was based on the armpit height of the minimum user which was somewhat arbitrary. Accordingly, the subcommittee elected to change the height to 24 inches.

There was discussion on whether a requirement for climbing ropes to be secured at the lower end had been approved. A manufacturer stated that previous discussion on this issue had been tabled. However, after consulting her records, the chairman noted that the requirement had been previously approved in a ballot in the spring of 1996.

A manufacturer demonstrated a mock-up of a polypropylene rope that was threaded through a hole in a plastic component and was not secured at either end that he claimed would not present a strangulation hazard. After discussion, the manufacturer drafted a proposal (see Attachment A) for ropes. In addition, it was agreed that the following warning would be added to Section 8 of the instructions: "8.3.7.1 Warning the buyer to instruct children not to tie jump ropes, clotheslines, pet leashes, and other ropes or cables to any part of the equipment."

A discussion of requirements for stairways, stepladders and rung ladders, that began at the last meeting, continued. It was agreed that the slope of rung ladders should be between 60° and 90° and the slope of stepladders should be $>35^{\circ}$ to no more than 75° . However, stepladders having a slope of over 65° should have gripable handrails. It was also agreed that stepladders with open treads should have a minimum tread depth of 3 inches.

The next three meetings have been scheduled for September 16-17, December 2-3, and March 3-4. The September meeting will be held at ASTM Headquarters and the December and March meetings will be held in Orlando, FL.

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Attachment

ATTACHMENT A

Upon further review of the proposed rope requirement at 5.9.1, it has been determined that this section provides a design requirement as opposed to a desired performance based requirement. To more appropriately address the strangulation hazard associated with the use of ropes on home playground equipment, the following is proposed:

5.9 Ropes

- 5.9.1 A rope which is secured at both ends shall not be capable of being looped back on itself so that it creates an inside loop perimeter greater than 5 inches.
- 5.9.2 A rope which is not secured at both ends shall not be able to tangle and form a loop perimeter greater than 14 inches either onto itself or in conjunction with adjacent components. Additionally, the ends of an unsecured rope shall be sufficiently bound to prevent unravelling.
- 5.9.3 Manufacturers shall ensure through appropriate durability tests that multi-twine ropes cannot readily fray or unravel to form a loop perimeter greater than 14 inches.
- 5.9.4 Ropes used to suspend swings are exempt from the above requirements.